

REMARKS

Claims 6 and 7 have been added and claims 4 and 5 have been canceled. Therefore, upon entering this amendment, claims 1-3, 6 and 7 are the claims pending in this application.

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulig (U.S. Patent No. 3,995,167) in view of Nakai et al. (U.S. Patent No. 4,155,826).

Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulig in view of Nakai et al. and further in view of Harris et al. (U.S. Patent No. 6,483,336).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kulig in view of Harris et al. (U.S. Patent No. 6,483,336).

The Applicants traverse the rejections and request reconsideration.

Rejection of claims 1 and 4 based on Kulig and Nakai

Kulig discloses a mixing device for mixing fluid. Kulig does not disclose "A vacuuming motor, for being attached to a peripheral edge of a motor attaching hole of a vacuum chamber and operable to be used as a drive apparatus of a board transporting robot in the vacuum chamber" or "A vacuuming apparatus with a motor main body operable to be used as a drive source of a robot in the vacuum chamber" of the amended claim 1.

In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned. See MPEP 2141.01 citing *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992) and *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986). Kulig belongs to a completely

nonanalogous art of mixing fluids compared to the present invention related to vacuum motors. A skilled artisan in the field of vacuum motors would not have found the Kulig reference which is related to mixing fluids.

Further, Nakai also belongs to a nonanalogous art and does not overcome the deficiency noted in the teachings of Kulig.

Claim 4 is dependent on claim 1, and is allowable at least for the same reasons.

Rejection of claims 2 and 5 based on Kulig, Nakai and Harris

Claim 2 and 5 are dependent on claim 1 and are allowable for the same reasons.

Further, Harris discloses in column 6 lines 18-21 that "when vacuum is applied to the sealed annular volume through a passageway 100, the device mounting member 92 is drawn upward toward the extension of the base," and in column 6 lines 41-43 that "vacuum is a convenient energy source for actuating the braking and stabilizing system". Therefore, in Harris, vacuuming is used for actuating the device mounting member 92.

On the other hand, in the present invention, as recited in claim 2, air at an interval between the vacuum seals is vacuumed so that air is not leaked into the vacuum chamber from the reduction gear main body and the motor main body in an atmosphere outside of the vacuum chamber.

Further, a skilled artisan would not have been motivated to combine the teachings of Kulig and Harris, because Kulig and Harris are nonanalogous. Further, there is no suggestion in Kulig and Harris to add the vacuum system of Harris between the seals 60 and 62 of Kulig. (The vacuum system of Harris is used for actuating the member 92, and not used to perform the sealing function.) Moreover, even if Kulig and Harris are improperly combined, neither Kulig nor Harris discloses "A vacuuming motor, for being attached

to a peripheral edge of a motor attaching hole of a vacuum chamber and operable to be used as a drive apparatus of a board transporting robot in the vacuum chamber" and "A vacuuming apparatus with a motor main body used as a drive source of a robot in the vacuum chamber".

In Harris, the passageway 100 has a corner and opened in a downward direction, so that the device mounting member 92 is actuated in an upward direction by vacuuming.

So, even if Kulig and Harris are improperly combined, neither Kulig nor Harris discloses "the middle sucking port opened in a radial direction of the output shaft for vacuuming air in the radial direction."

Rejection of claim 3 based on Kulig and Harris

Claim 3 includes limitations analogous to limitations discussed above in relation to claims 1 and 2. Therefore, it is allowable at least for analogous reasons.

New Claims 6 and 7

New claims 6 and 7 are presented for examination.

In Harris, a second o-ring 98 seals an annular volume between an upper surface of the device mounting member 92 and the extension of the base 94 (column 6 lines 17-19) from the atmosphere. (The second o-ring 98 partitions the annular volume and the atmosphere.) So, neither Harris nor Kulig discloses the "the second vacuum seal partitioning the inner space between the first and the second vacuum seals for being vacuumed and the inner space of the vacuum chamber" of the new claims 6 and 7. Therefore, claims 6 and 7 are additionally distinguishable from the combined teachings of Kulig, Harris and Nakai.


AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Patent Application No.: 10/660,652

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In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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